

CONTROLLABLE BANDWIDTH POLARIZER

ABSTRACT OF THE INVENTION

A light controlling film is described comprising a polymerized polymer network of a crosslinked high molecular weight polymeric material and a low molecular weight cholesteric liquid crystal (CLC) material, wherein the high molecular weight and the low molecular weight form a material having cholesteric liquid crystal (CLC) order such that the film is a reflective circular polarizer whose bandwidth is controllable by an electric field impressed in the film.